

ENVIRONMENTAL STUDIES PROGRAM: Ongoing Studies

Region: Atlantic

Planning Area(s): Atlantic

Title: Information Synthesis on the Potential for Bat Interactions with Offshore Wind Facilities (M11PD00212)

BOEM Cost: \$109,988

Period of Performance: FY 2011-2012

Conducting Organization(s): Stantec Consulting Services Inc.

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Description:

Background: With the passage of the Energy Policy Act of 2005, BOEM was delegated the responsibilities for renewable energy activities on the Outer Continental Shelf (OCS). This new responsibility includes offshore wind energy projects. The impact of land-based wind energy development on bats is relatively well-understood compared to offshore wind energy development. In a couple of instances, land-based wind facilities were sited in areas of bat migration, resulting in bat mortality. Not surprisingly, there is concern that in some locations bats may be at risk from offshore wind facilities. Surveys for bats along the Atlantic OCS near Maine, Rhode Island and New Jersey suggest that bat activity appears to be much less than that on land. A formal and rigorous analysis is needed to determine if this observation is true.

A thorough literature review of scientific studies (published and unpublished) is needed of the potential direct and indirect impacts of offshore wind energy development on bat species including avoidance and attraction behaviors, and the cumulative impacts of multiple wind facilities. Second, a compilation of studies (published or unpublished) documenting survey results for bats on the Atlantic OCS is needed. Third, a database needs to be built from bat surveys using Anabat detectors conducted on land and offshore along the Atlantic OCS. To control for the random effects of spatial and temporal variation in bat detections, the bat survey data will have to be grouped by region (or some other appropriate spatial feature) and matched in time for the statistical analysis.

Objectives: The objectives of the study are: 1) to conduct a thorough literature review of scientific studies of the impacts of offshore wind energy development on bats; 2) to compile past and ongoing studies documenting bat occurrences over the Atlantic OCS; and 3) to conduct a statistical comparison of bat detections at land based wind facilities and bat detections on the OCS.

Importance to BOEM: The offshore wind energy development has the potential to impact bats. Understanding the relative distribution and abundance of bats species on the

Atlantic OCS will greatly assist BOEM in assessing the risk of bats to offshore wind energy development.

Current Status: September 20, 2011. The Contractor is working on the synthesis.

Final Report Due: September 30, 2012

Publications: None.

Affiliated Web Sites: None.

Revised Date: February 22, 2012

ESPIS: Environmental Studies Program Information System

All *completed* ESP studies can be found here:

http://www.data.boem.gov/homepg/data_center/other/espis/espisfront.asp